UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,577	01/23/2001	Norio Nagai	0905-0254P-SP	2339

2292 7590 04/20/2009
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
MISLEH, JUSTIN P	

ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
04/20/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	09/766,577	NAGAI, NORIO	
	Examiner	Art Unit	
	JUSTIN P. MISLEH	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-7 and 9-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-7 and 9-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed February 20, 2009 have been fully considered but they are not persuasive.

2. Applicant argues, "in Kowno, at the time of shooting the object, the size of the image being shot is changed by either changing the focal length of the shooting lens 3 or by digital zooming. Therefore, once the zoom button 15 or the touch tablet 6A is operated to change the size of the image being shot, the information processing device of Kowno no longer senses a non-magnified full image." See Amendment, page 7.

3. The Examiner respectfully disagrees with Applicant's position based on at least three of Kowno et al. teachings:

In paragraph 0050, Kowno et al. state, "Actuating means in the form of the zoom button 15 is activated when changing a focal length of the shooting lens 3 when shooting the object. Zoom button 15 also is operated when changing magnification of the displayed image when displaying a previously recorded image. As used herein, 'zoom' refers to a process in which the image is either enlarged or reduced. Zooming can be accomplished mechanically (for example, by driving a lens system to change the focal length of a shooting lens) or electronically (for example, by interpolation or thinning, i.e., data manipulation), which sometimes is referred to as 'digital zoom.'"

In paragraph 0157, Kowno et al. state, "by actuating the zoom button 15 at the time of shooting the object, the focal length of the shooting lens 3 is changed to optically change the

magnification of the shot images. However, as an alternative, the magnification of the shot image can be electronically (i.e., digitally) changed in response to the actuation of the zoom button 15. This can be done by interpolating (to enlarge) or skipping or thinning (to reduce) the image data-supplied by the CCD 20."

In paragraph 0185, Kowno et al. state, "In the above embodiments, an explanation was provided for an electronic camera in which the focal length of a shooting lens 3, also known as a zoom lens, can be changed. However, the present invention also is applicable to electronic cameras that have a single focusing lens with a fixed focal length and that rely on a digital zoom process, for example, as described in the second embodiment, to change the magnification of the image of the object during shooting of the object by actuating a zoom button 15 or a touch tablet 6A."

There is overwhelming evidence Kowno et al. provide zooming while capturing an image via changing an optical system and/or performing digital zooming and while viewing a previously recorded image via digital zooming. Kowno et al. provide several methods of digital zooming that allow the image sensor to provide non-magnified full image data while the output data is operated on. For these reasons, the rejection will be maintained.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1, 2, and 5 – 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kowno et al. (US 2002/0093578 A1) in view of Bhargava et al. (US 6,072,586).

6. For **Claims 1 and 2**, Kowno et al. disclose, as shown in figures 1, 2, 4, and 8 – 11, an image sensing apparatus (1) and a method of operating thereof comprising:

an image sensing device (CCD 20) for sensing an image of a subject through a lens having a predetermined focal length (see paragraph 185) and outputting image data representing the image of the subject;

a display control unit (CPU 39) for controlling a display unit (LCD 6) in such a manner that the image of the subject represented by the image data output from said image sensing device (CCD 20) will be displayed on a display screen (LCD 6),

a designating unit (Touch Tablet 6A) which allows a user to designate an electronic zoom area, within the displayed image, while a non-magnified full is being sensed by the image sensing device (see figures 8 and 9 and paragraphs 0050, 0157 and 0185);

a zoom changeover unit (CPU 39) that displays the designated electronic zoom area on an entire display unit, while a non-magnified full is being sensed by the image sensing device (see figures 8 and 9 and paragraphs 0050, 0157 and 0185);

an electronic zoom device (CPU 39) that allows the user to change magnification of the image of the designated electronic zoom area (see figures 8 – 11), while a non-magnified full is being sensed by the image sensing device (see figures 8 and 9 and paragraphs 0050, 0157 and 0185);

a recording control unit (CPU 39) for recording, on a recording medium (24), image data output from said image sensing device (see paragraph 0070).

In paragraph 0050, Kowno et al. state, "Actuating means in the form of the zoom button 15 is activated when changing a focal length of the shooting lens 3 when shooting the object. Zoom button 15 also is operated when changing magnification of the displayed image when displaying a previously recorded image. As used herein, 'zoom' refers to a process in which the image is either enlarged or reduced. Zooming can be accomplished mechanically (for example, by driving a lens system to change the focal length of a shooting lens) or electronically (for example, by interpolation or thinning, i.e., data manipulation), which sometimes is referred to as 'digital zoom.'"

In paragraph 0157, Kowno et al. state, "by actuating the zoom button 15 at the time of shooting the object, the focal length of the shooting lens 3 is changed to optically change the magnification of the shot images. However, as an alternative, the magnification of the shot image can be electronically (i.e., digitally) changed in response to the actuation of the zoom button 15. This can be done by interpolating (to enlarge) or skipping or thinning (to reduce) the image data-supplied by the CCD 20."

In paragraph 0185, Kowno et al. state, "In the above embodiments, an explanation was provided for an electronic camera in which the focal length of a shooting lens 3, also known as a zoom lens, can be changed. However, the present invention also is applicable to electronic cameras that have a single focusing lens with a fixed focal length and that rely on a digital zoom process, for example, as described in the second embodiment, to change the magnification of the image of the object during shooting of the object by actuating a zoom button 15 or a touch tablet 6A."

There is overwhelming evidence Kowno et al. provide zooming while capturing an image via changing an optical system and/or performing digital zooming and while viewing a previously recorded image via digital zooming. Kowno et al. provide several methods of digital zooming that allow the image sensor to provide non-magnified full image data while the output data is operated on.

However, the Examiner acknowledges that although Kwono et al. disclose recording on the recording medium image data output from said image sensing device; Kwono et al. do not disclose where the image data that is recorded includes the non-magnified full image being sensed by the image sensing device, and data indicating position of the electronic zoom area within the recorded non-magnified full image.

On the other hand, Bhargava et al. also disclose an image-based device that includes a designating unit for designating an electronic zoom area in the image of the subject. More specifically, Bhargava et al. teach, as shown in figure 3, an image-based device (60) that includes a designating unit (40/60) for designating an electronic zoom area (rectangle points 50) in the image of the subject (see sequence in figure 2). Furthermore, Bhargava et al. also teach, as stated in column 3 (lines 2 – 25), where the image data that is recorded includes a non-magnified full image being sensed by the image sensing device, and data indicating position of the electronic zoom area within the recorded non-magnified full image.

Based on this teaching, at the time the invention was made, it would have been obvious to one with ordinary skill in the art have where the image data that is recorded includes a non-magnified full image being sensed by the image sensing device, and data indicating position of the electronic zoom area within the recorded non-magnified full image, as taught by Bhargava et

al., in the image sensing apparatus, disclosed by Kowno et al. for the advantage of *providing initial images with desired image enhancement features* (see Bhargava et al., column 1, lines 49-50).

7. As for **Claim 5**, Kowno et al. disclose, as shown in figure 1, wherein said apparatus is a digital still camera (1).

8. As for **Claim 6**, Kowno et al. disclose, as stated in paragraphs 183 and 185, wherein said designating unit (Touch Tablet 6A) is a zoom-area designating switch of said digital still camera (1).

As shown in figure 2, the touch tablet (6A) is a part of the digital still camera (1). As stated in paragraphs 183 and 185, the touch tablet (6A) is used for designating the electronic zoom area on the image captured by the camera (1). Accordingly, the Examiner considers the touch table (6A) to be a zoom-area designating switch.

9. As for **Claim 7**, Kowno et al. disclose, as stated in paragraphs 50 and 157, wherein the electronic zoom device electronically magnifies the image in the designated zoom area by changing a downsampling ratio ("thinning").

10. **Claims 9 – 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kowno et al. (US 2002/0093578 A1) in view of Bhargava et al. (US 6,072,586) in further view of Okamura (US 6,788,345 B1).

11. For **Claim 9**, Kowno et al. disclose, as shown in figures 1, 2, 4, and 8 – 11, an image sensing apparatus (1) and a method of operating thereof comprising:

an image sensing device (CCD 20) for sensing an image of a subject through a lens having a predetermined focal length (see paragraph 185) and outputting image data representing the image of the subject;

a display unit (LCD 6) for displaying the image of the subject represented by the image data;

a designating unit (Touch Tablet 6A) which allows a user to designate an electronic zoom area, within the displayed image, while a non-magnified full is being sensed by the image sensing device (see figures 8 and 9 and paragraphs 0050, 0157 and 0185);

a zoom changeover unit (CPU 39) that displays the designated electronic zoom area on an entire display unit (see figure 9), while a non-magnified full is being sensed by the image sensing device (see figures 8 and 9 and paragraphs 0050, 0157 and 0185);

an electronic zoom device (CPU 39) that allows the user to change magnification of the image of the designated electronic zoom area (see figures 8 – 11), while a non-magnified full is being sensed by the image sensing device (see figures 8 and 9 and paragraphs 0050, 0157 and 0185);

a light-emission control unit (Strobe Driving Circuit 37) for controlling a strobe light-emission device (Strobe 4); and

a recording control unit (CPU 39) for recording, on a recording medium (24), image data output from said image sensing device (see paragraph 0070).

In paragraph 0050, Kowno et al. state, "Actuating means in the form of the zoom button 15 is activated when changing a focal length of the shooting lens 3 when shooting the object. Zoom button 15 also is operated when changing magnification of the displayed image when

displaying a previously recorded image. As used herein, 'zoom' refers to a process in which the image is either enlarged or reduced. Zooming can be accomplished mechanically (for example, by driving a lens system to change the focal length of a shooting lens) or electronically (for example, by interpolation or thinning, i.e., data manipulation), which sometimes is referred to as 'digital zoom.'"

In paragraph 0157, Kowno et al. state, "by actuating the zoom button 15 at the time of shooting the object, the focal length of the shooting lens 3 is changed to optically change the magnification of the shot images. However, as an alternative, the magnification of the shot image can be electronically (i.e., digitally) changed in response to the actuation of the zoom button 15. This can be done by interpolating (to enlarge) or skipping or thinning (to reduce) the image data-supplied by the CCD 20."

In paragraph 0185, Kowno et al. state, "In the above embodiments, an explanation was provided for an electronic camera in which the focal length of a shooting lens 3, also known as a zoom lens, can be changed. However, the present invention also is applicable to electronic cameras that have a single focusing lens with a fixed focal length and that rely on a digital zoom process, for example, as described in the second embodiment, to change the magnification of the image of the object during shooting of the object by actuating a zoom button 15 or a touch tablet 6A."

There is overwhelming evidence Kowno et al. provide zooming while capturing an image via changing an optical system and/or performing digital zooming and while viewing a previously recorded image via digital zooming. Kowno et al. provide several methods of digital

zooming that allow the image sensor to provide non-magnified full image data while the output data is operated on.

However, the Examiner acknowledges that although Kwono et al. disclose recording on the recording medium image data output from said image sensing device; Kwono et al. do not disclose where the image data that is recorded includes a non-magnified full image being sensed by the image sensing device, and data indicating position of the electronic zoom area within the recorded non-magnified full image.

On the other hand, Bhargava et al. also disclose an image-based device that includes a designating unit for designating an electronic zoom area in the image of the subject. More specifically, Bhargava et al. teach, as shown in figure 3, an image-based device (60) that includes a designating unit (40/60) for designating an electronic zoom area (rectangle points 50) in the image of the subject (see sequence in figure 2). Furthermore, Bhargava et al. also teach, as stated in column 3 (lines 2 – 25), where the image data that is recorded includes a non-magnified full image being sensed by the image sensing device, and data indicating position of the electronic zoom area within the recorded non-magnified full image.

Based on this teaching, at the time the invention was made, it would have been obvious to one with ordinary skill in the art have where the image data that is recorded includes a non-magnified full image being sensed by the image sensing device, and data indicating position of the electronic zoom area within the recorded non-magnified full image, as taught by Bhargava et al., in the image sensing apparatus, disclosed by Kowno et al. for the advantage of *providing initial images with desired image enhancement features* (see Bhargava et al., column 1, lines 49-50).

However, Kowno et al. only teach illuminating an entire sensed image, which fully encompasses illuminating a part of the subject that corresponds to an image within the electronic zoom area in the entire sensed image and Bhargava et al. is silent with respect to illuminating. Therefore, Kowno et al. in view of Bhargava et al. do not specifically disclose a light-emission control unit that is for controlling a strobe light-emission device in such a manner that the strobe light-emission device illuminates precisely a position of a subject that corresponds to the center point of the designated electronic zoom area.

In analogous art, Okamura also disclose an image sensing apparatus and a method of operating thereof including designating a zoom feature. More specifically, Okamura teaches, as shown in figures 1 and 2 and as stated in columns 3 (lines 1 – 5, 34 – 45, and 62 – 67) and 4 (lines 1 – 20), an image sensing apparatus including a zoom switch (113) such that when the zoom switch (113) is operated, a zoom lens (102) is moved accordingly, wherein a flash control device (109), also included in the image sensing apparatus, controls an angle of illumination of the flash (110) to correspond to a zoomed sensed image. Moreover, Okamura "controls the illuminating angle of the flash device 110 according to the magnification varying information." Therefore, Okamura provides said light control unit changing a light emitting angle of the strobe light-emission device based on the zoomed image, as claimed. The Examiner respectfully notes that since the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art, it is irrelevant whether or not the zooming performed by Okamura is an optical zoom or an electronic zoom.

Hence, at the time the invention was made it also would have been obvious to one with ordinary skill in the art to have changed a light emitting angle of the strobe light-emission device

based on the electronically magnified image (as suggested by Okamura) in the image sensing apparatus and corresponding method (taught in combination of Kowno et al. in view of Bhargava et al.) for the advantage of "*taking a shot of an object with an adequate amount of exposure*" (see column 1, lines 20 – 22, of Okamura).

12. As for **Claim 10**, Kowno et al. disclose, as stated in paragraphs 50 and 157, wherein the electronic zoom device electronically magnifies the image in the designated zoom area by changing a downsampling ratio ("thinning").

13. As for **Claim 11**, Kwono et al. disclose a light-emission control unit (Strobe Driving Circuit 37) for controlling a strobe light-emission device (Strobe 4); however, Kowno et al. only teach illuminating an entire sensed image, which fully encompasses illuminating a part of the subject that corresponds to an image within the electronic zoom area in the entire sensed image. Furthermore, Bhargava et al. is silent with respect to illuminating. Therefore, Kowno et al. in view of Bhargava et al. do not specifically disclose a light-emission control unit that is for controlling a strobe light-emission device in such a manner that the strobe light-emission device illuminates precisely a position of a subject that corresponds to the center point of the designated electronic zoom area.

Although, in analogous art, Okamura also disclose an image sensing apparatus and a method of operating thereof including designating a zoom feature. More specifically, Okamura teaches, as shown in figures 1 and 2 and as stated in columns 3 (lines 1 – 5, 34 – 45, and 62 – 67) and 4 (lines 1 – 20), an image sensing apparatus including a zoom switch (113) such that when the zoom switch (113) is operated, a zoom lens (102) is moved accordingly, wherein a flash control device (109), also included in the image sensing apparatus, controls an angle of

illumination of the flash (110) to correspond to a zoomed sensed image. Moreover, Okamura "controls the illuminating angle of the flash device 110 according to the magnification varying information." Therefore, Okamura provides said light control unit changing a light emitting angle of the strobe light-emission device based on the zoomed image, as claimed. The Examiner respectfully notes that since the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art, it is irrelevant whether or not the zooming performed by Okamura is an optical zoom or an electronic zoom.

Hence, at the time the invention was made it also would have been obvious to one with ordinary skill in the art to have changed a light emitting angle of the strobe light-emission device based on the electronically magnified image (as suggested by Okamura) in the image sensing apparatus and corresponding method (taught in combination of Kowno et al. in view of Bhargava et al.) for the advantage of "*taking a shot of an object with an adequate amount of exposure*" (see column 1, lines 20 – 22, of Okamura).

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David Ometz can be reached on 571.272.7593. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Justin P. Misleh/
Primary Examiner
Group Art Unit 2622
April 16, 2009